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AMENDMENT TO THE ABSTRACT

Please cancel the original abstract and replace with the following abstract
beginning on the next full sheet:

ABSTRACT OF THE DISCLOSURE

A sputter ion source includes an ionizer; a sputter cathode, including a cathode, a sputter insert, and a shielding cap; a forming electrode; a cathode insulator; a hollow, cylindrical shielding cathode, surrounding the sputter cathode, and tapered rotationally symmetrically in the region of the sputter insert; and a vacuum-tight housing for enclosing all of the foregoing. The sputter ion source has a prolonged operating life, low maintenance costs, and prevents atomization of parts of the ion source, for generating negative ions, in the vicinity of the cathode insert.